Rejection under 35 U.S.C. §102(e)

The Examiner has rejected claims 1-5 as being anticipated by Belohlavek '109. The claim requires that the computation conform to the "convex hull" language of the specification. In Belohlavek '109 all the points collected in the 2-D slices are equally important in the sense that the wall location calculation treats them all the same and as equally valid indicators of wall location. In the convex hull process the points are evaluated with the objective of computing wall location from the most exterior set of points at any moment in the cardiac cycle. The convex hull in some ways is not as accurate as other methods as it overestimates the volume of the heart at any given instant. An error in location can lead to "bigger" error in wall location as well. However it is part of the invention of applicants to make this trade off. In practice applicants system can make more measurements and applicant prefers this technique over those taught by the prior art. Applicant notes that the convex hull calculation is a part of each claim and further contends that the convex hull calculation are not present in the Belohlavek '109. For this reason the Belohlavek '109 is not an anticipation of claims 1-5.

Rejection under 35 U.S.C. §102(b)

The Examiner has rejected claims 1-6 as being unpatentable over Sheehan '084. It appears that Sheehan is not really directed to the same problem that confronts applicant. As understood by applicant Sheehan is attempting to measure the thickness of a heart wall. He creates a set of polygons that "fill" the wall space. Once again there is no teaching or use of a convex hull to select and compute a wall surface as required by claims 1-6.

Rejection under 35 U.S.C. §103

The Examiner has rejected claim 7 as being unpatentable over Sheehan et al. Applicant acknowledges that Newtonian physics tells one of ordinary skill how to find acceleration from a sequence of wall positions. However more is going on in that claim. The convex hull calculation is used to create a set of shells that are compared. In Sheehan the wall thickness is found and a measurement is made after computing the "midpoints" in the wall. There is no shell to shell comparison required by applicant . Sheehan lacks this essential teaching and cannot render the claim at hand obvious.

CONCLUSION

All of the claims remaining in this application should now be seen to be in condition for allowance. The prompt issuance of a notice to that effect is solicited.

Respectfully Submitted,
ENDOCARDIAL SOLUTIONS, INC.
By its attorneys:

Date: 5/14/01
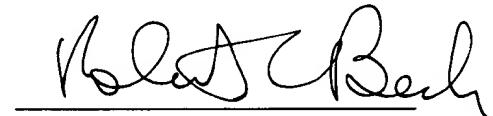
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